

Page 3, lines 20-23:

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U.S. Patent Application Serial No. 09/512,618 entitled METHOD AND APPARATUS FOR MANAGING SHARED MEMORY IN A RUN-TIME ENVIRONMENT, filed on February 25, 2000 by Harlan Sexton *et al.*; and

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U.S. Patent Application Serial No. 09/512,620 entitled USING A VIRTUAL MACHINE INSTANCE AS THE BASIC UNIT OF USER EXECUTION IN A SERVER ENVIRONMENT, filed on February 25, 2000 by Harlan Sexton *et al.*

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Some of these techniques are described in greater detail in the co-pending, commonly assigned applications, U.S. Patent Application Serial No. 9/512,622 entitled METHOD FOR MANAGING MEMORY USING ACTIVATION-DRIVEN INITIALIZATION IN A RUN-TIME ENVIRONMENT, filed on February 25, 2000 by Harlan Sexton *et al.* and U.S. Patent Application Serial No. 09/512,619 entitled METHOD FOR MANAGING MEMORY USING EXPLICIT, LAZY INITIALIZATION IN A RUN-TIME ENVIRONMENT, filed on February 25, 2000 by Harlan Sexton *et al.*, the contents of both of which are incorporated by reference in their entirety.

**IN THE CLAIMS:**

Please amend claims 1, 3-10, and 12-18 by way of replacement, and add new claims 19-22 as follows. For convenience all pending claims are set forth as follows, and a marked-up version of the amended claims is enclosed in the Appendix.

1. (Once Amended) A method for analyzing a program, comprising the steps of:

logging a plurality of stack traces and respective tags in a log file at respective points during execution of the program; and

recording within the log file one or more of the tags are one or more marked tags.

2. (Not Amended) The method according to claim 1, further comprising the step of:  
producing a report based on the log file.

3. (Once Amended) The method according to claim 2, wherein the step of producing the report includes:

identifying one or more of the stack traces that are associated with any of the one or more tags marked; and

producing the report based on the identified one or more of the stack traces.

4. (Once Amended) The method according to claim 2, wherein producing the report includes:

identifying a last stack trace that is associated with one of the one or more marked tags; and  
producing the report based on the identified last stack trace.

5. (Once Amended) The method according to claim 1, wherein:

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the tags indicate respective addresses of allocated objects; and  
the one or more marked tags indicate one or more respective addresses of migrated objects.

6. (Once Amended) A method for producing a diagnostic report for a program, comprising the steps of:

accessing a log file comprising a list of stack traces and respective tags at associated points during execution of the program and comprising one or more of the recorded as one or more marked tags; and  
producing the diagnostic report based on the log file.

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7. (Once Amended) The method according to claim 6, wherein the step of producing the report includes:

identifying one or more of the stack traces that are associated with any of the one or more marked tags; and  
producing the report based on the identified one or more of the stack traces.

8. (Once Amended) The method according to claim 6, wherein producing the report includes:

identifying a last stack trace that is associated with one of the one or more marked tags; and  
producing the report based on the identified last stack trace.

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9. (Once Amended) The method according to claim 6, wherein:

the tags indicate respective addresses of allocated objects; and

the one or more marked tags indicate one or more respective addresses of migrated objects.

10. (Once Amended) A computer-readable medium bearing instructions for analyzing a program, said instructions being arranged to cause one or more processors upon execution thereby to perform the steps of:

logging a plurality of stack traces and respective tags in a log file at respective points during execution of the program; and

recording within the log file one or more of the tags are one or marked tags.

11. (Not Amended) The computer-readable medium according to claim 10, further bearing instructions for performing the step of:

producing a report based on the log file.

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12. (Once Amended) The computer-readable medium according to claim 11, wherein the step of producing the report includes:

identifying one or more of the stack traces that are associated with any of the one or more marked tags; and

producing the report based on the identified one or more of the stack traces.

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13. (Once Amended) The computer-readable medium according to claim 11, wherein producing the report includes:

identifying a last stack trace that is associated with one of the one or more marked tags; and  
producing the report based on the identified last stack trace.

14. (Once Amended) The computer-readable medium according to claim 10, wherein:

the tags indicate respective addresses of allocated objects; and

the one or more marked tags indicate one or more respective addresses of migrated objects.

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15. (Once Amended) A computer-readable medium bearing instructions for producing a diagnostic report for a program, said instructions being arranged to cause one or more processors upon execution thereby to perform the steps of

accessing a log file comprising a list of stack traces and respective tags at associated points

during execution of the program and comprising one or more marked tags; and

producing the diagnostic report based on the log file.

16. (Once Amended) The computer-readable medium according to claim 15, wherein the step of producing the report includes:

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identifying one or more of the stack traces that are associated with any of the one or more marked\_tags; and  
producing the report based on the identified one or more of the stack traces.

17. (Once Amended) The computer-readable medium according to claim 15, wherein producing the report includes:

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identifying a last stack trace that is associated with one of the one or more marked\_tags; and  
producing the report based on the identified last stack trace.

18. (Once Amended) The computer-readable medium according to claim 15, wherein:

the tags indicate respective addresses of allocated objects; and

the one or more marked tags indicate one or more respective addresses of migrated objects.

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19. (New) The method according to claim 4, wherein the step of producing the report includes:

processing the log file from the end backward until the beginning.

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20. (New) The method according to claim 8, wherein the step of producing the report includes:

processing the log file from the end backward until the beginning.